VOLUME [illegible] SEPTEMBER 1956

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(See Contents)

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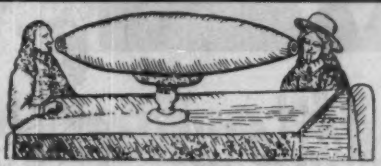
Entered as second class matter at the post office at Baltimore, Md., under the Act of August 2, 1912.
Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1919, authorized January 22, 1932.
Publication Office: Monumental Printing Company, 32nd Street and Elm Avenue, Baltimore 11, Md.
Editorial Office: 1537 35th Street, N. W., Washington 7, D. C.

From a shout...



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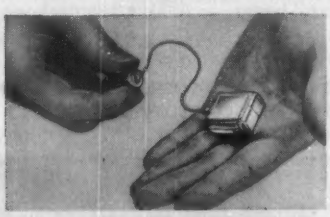

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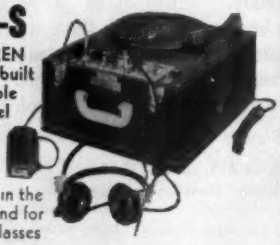

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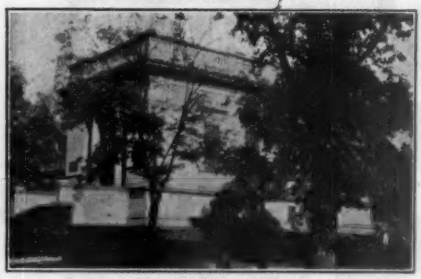
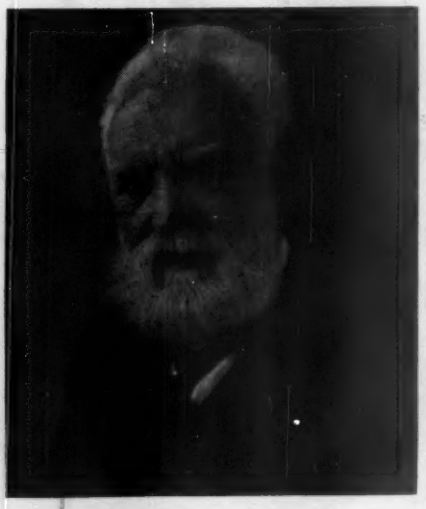


THE VOLTA BUREAU

THE ALEXANDER GRAHAM BELL ASSOCIATION FOR THE DEAF welcomes to its membership all who are interested in improving the education of the deaf and the hard of hearing, their ability to communicate with those who hear normally, and their adjustment to life in the hearing world. Its membership fee ($5 a year—$100 for life) includes a subscription to *The Volta Review*. Those wishing to lend additional support to the work of the Association may become sustaining members for a fee of $10 per year.

THE VOLTA BUREAU, headquarters of the Association, is an information center about deafness, founded by Alexander Graham Bell in 1887. Its library on deafness and speech is probably the largest in the world, containing books in twenty or more languages.



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THE VOLTA REVIEW

ALICE DUNLAP, EDITOR

PUBLISHED BY THE ALEXANDER GRAHAM BELL ASSOCIATION FOR THE DEAF, INC.

1537 35TH STREET, N.W., WASHINGTON 7, D. C.

VOLUME 58 SEPTEMBER 1956 NUMBER 7

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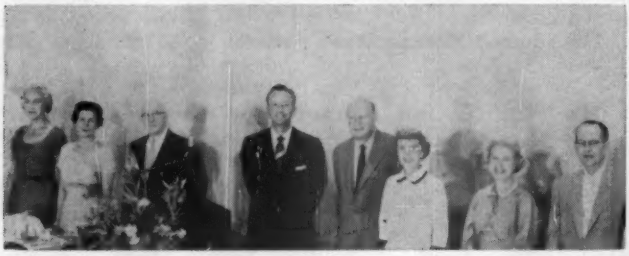
COVER

This month's cover picture shows students at the Boston School for the Deaf, Randolph, Massachusetts, working to improve language ability for self-expression by looking and listening. The picture was one on exhibit at the Association's 1956 Summer Meeting.

The Meeting Was a Success!

A Report of the 66th Annual Meeting
22nd Summer Program Meeting
Alexander Graham Bell Association for the Deaf

ATTENDANCE and enthusiasm exceeded all expectations when the Association met in California for the first time in 24 years—and the third time in its history. The 1956 Summer Meeting opened on Monday morning, June 18 at the Hotel Statler, Los Angeles. During the meetings, and in the many "after hours" hall sessions, there was lively discussion centered around the program theme—"To Promote Oral Education for the Deaf."



This informal picture, taken at the Summer Meeting banquet held at the Hotel Statler, includes (left to right): Mrs. Evelyn Stahlem; Mrs. Clarence D. O'Connor; President O'Connor; Robert Young, prominent movie actor and the banquet's master of ceremonies; Dr .Frank Baxter, professor and TV personality and the speaker of the evening; Mrs. Robert Young, Mrs. Spencer Tracy; and Dr. Clarence V. Hudgins.

Although the majority of the 500 delegates were teachers and school administrators, many parents, deaf adults, therapists, audiologists and others were also present. One of the most successful meetings was the open forum for parents, moderated by Mrs. Spencer Tracy, which considered the subject of home and parent guidance. This forum was followed by two hours of discussion with active audience participation.

Proceedings of the Summer Meeting will not be published separately, but all papers will appear in forthcoming issues of the *Volta Review*. This issue contains the presidential address, a keynote address by Dr. William G. Hardy, and partial proceedings of the Open Forum for Parents. Minutes of the annual business meeting have also been included.

In addition to the interesting program meetings planned by Dr. Clarence V. Hudgins and members of the Program Committee, local members and host schools in the Los Angeles area made elaborate plans for the entertainment of delegates. This included an open house and reception at the John Tracy Clinic, the annual banquet, sightseeing tours, visits to a number of motion picture studios, free tickets to Disneyland, a sneak preview at the Paramount studios, alumni luncheons and a trip to the California School for the Deaf at Riverside.

At the Summer Meeting banquet, Emcee Robert Young introduced members and guests at the speaker's table and then presented Dr. Frank Baxter, professor of English at the University of Southern California and a noted TV personality. Dr. Baxter, who skyrocketed to national prominence following a series of lectures entitled "*Shakespeare on TV*," announced that he would forsake his "client" and devote the evening to a discussion of Robert Benchley. There was a generous measure of laughter and applause.

All in all the program and entertainment added up to a busy but enjoyable and informative week for those who attended the 1956 Summer Meeting. Special thanks go to the delegates for their support, and to the chairmen and members of the planning and program committees. Space does not permit the listing of the many individuals whose diligence and hard work made the meeting possible, but many of them are mentioned by President O'Connor in his address appearing on the next page.

"To Promote Oral Education For the Deaf"

Presidential Address, 1956 Summer Meeting
Alexander Graham Bell Association for the Deaf

CLARENCE D. O'CONNOR

ON behalf of the Alexander Graham Bell Association for the Deaf, it gives me great pleasure to welcome you to the Association's 66th Annual Meeting and its 22nd Summer Program Meeting.

Under the co-chairmanship of Mrs. Spencer Tracy of the John Tracy Clinic, and Mrs. Evelyn Stahlem of the Mary E. Bennett School, a splendid program of papers, demonstrations and special events has been developed by Dr. Edgar L. Lowell, committee coordinator, and Dr. Clarence V. Hudgins, program chairman, with the assistance and guidance of the General Planning Committee, the Local Arrangements Committee and the Volta Bureau staff. The attractive program documentation of the events that will take place day by day has been provided through the courtesy of Dr. W. Laurens Walker and Mr. N. F. Walker of the South Carolina School for the Deaf.

To all of these, I express heartfelt gratitude for planning so carefully and so capably for our Association visit to beautiful California. I know that the next five days will not only be enjoyable, but stimulating and rewarding as well.

Theme of the Meeting

Our theme for this meeting is "To Promote Oral Education for the Deaf." This actually could be called the continuing theme of the Association, for its prime objective, when it was founded in 1890 by Alexander Graham Bell, was to promote the teaching of speech to the deaf. The Association's objectives for deaf children are essentially the same today as they were when the Association was founded, and Bell's statement concerning ways of achieving oral competence, made at the first Association Summer Meeting in 1891, is still a good guide for oral education. He said:

"Let us teach children to think in English by using English in their presence, in a clearly visible form."

We certainly know that a deaf child, as well as a hearing child, will acquire competence in the use of the English language only to the degree that he is exposed to it in its correct form. A good program of oral education for deaf children, then, should provide not only for their extensive exposure to spoken English, but to the written form as well. Dr. Bell was a great exponent of language saturation through writing as well as through speech and lipreading, and accomplished wonders with his pupil, George Sanders, largely through the latter medium.

Next, Dr. Bell said:

"Let us teach them the use of the eye as a substitute for the ear, in understanding the utterances of their friends."

Today, with the wonderful strides that have been made in the quality and effectiveness of hearing aids, we would have to expand Dr. Bell's statement to urge also that full and continuous use be made of residual hearing at all times. There are still too many educators of the deaf who have not absorbed the fact that we have everything to gain and nothing to lose by using hearing aids with our children with severe hearing impairment.

"Let us give them instruction in the ordinary branches of education by means of the English language."

The educational potentials of our deaf children have extended considerably since 1891. However, we still are inclined to underestimate their capacity for achievement. We should also add to Dr. Bell's statement another objective that should be a concomitant of a good oral education, namely that the educational and social experiences for the deaf should be so well planned and implemented that they will

have a reasonably good chance of moving into the adult hearing world equipped with those social competencies that make for a happy and well-adjusted life. I am convinced that meeting these experiences in an oral climate will increase the possibility of acquiring such desirable social competence.

"Let us teach them to speak by giving them instruction in the use of their vocal organs."

The ability to speak is perhaps man's most priceless skill. For the deaf it is the most eagerly sought but the most difficult to acquire. There is no easy road to its attainment. It is largely accomplished by sheer hard work and persistence on the part of both teacher and child. But we all know that in spite of capable instruction, persistent effort and sheer hard work, some deaf children never acquire good speech.

Let Us Think Positively

I am inclined to belive that too many of us think negatively rather than positively about the speech of the deaf. We focus on our failures rather than on our successes. I know this is what the naive hearing public does. It is difficult to understand why the public rejects the speech achievement of a congenitally deaf child because it is not completely normal in all respects, and condemns those programs and people responsible for its development, while at the same time this same public enthusiastically applauds the achievement of a congenitally crippled child who has learned to walk—even though his gait is far from normal. Truly the deaf are the most misunderstood group of all.

Let us think positively and realistically about the speech of the deaf. Let us build up our enthusiasm and our energy from our successes, and not feed our pessimism on our failures. The high degree of success that has been accomplished with one deaf child can be duplicated. Not all will achieve equally, but all can acquire some skill. I remember well the answer Dr. Harris Taylor once gave a severe critic of the speech of the deaf. The observation of this critic was: "What a waste of time to try to teach this child to talk. Nobody can understand him." "Well," Dr. Taylor said, "his teacher understands him and his family understands him. Anyway, is he any worse off than he would be if he had no speech whatever?"

So we must keep trying. And in the process of trying, we will continue to widen the horizons of speech opportunity for our deaf children and in turn extend the possibility for their oral education.

Dr. Bell's concluding observation at the 1891 meeting was:

"We do not know yet how best to teach speech to the deaf. If we did we would not be here. We have come here to learn from one another in the hope of improving our methods of teaching."

We Must Keep Searching

Well, our objectives and interests have not changed much since 1891. We still are searching for better ways to teach our deaf children. That is our reason for being here today. I am sure you will not find the answers to all your perplexing problems at this meeting, but I am equally sure that you will find new inspiration in what you see, hear and do during the next five days. Your program planners have arranged the most interesting and varied series of activities for your education and entertainment. Bless you for coming, and enjoy yourselves.

Problems of Audition, Perception and Understanding

Differentiation and Needs

A Keynote Address at the 1956 Summer Meeting
Alexander Graham Bell Association for the Deaf, Los Angeles

WILLIAM G. HARDY, Ph.D.

IN the stream of the history of ideas, is a truism that man's most distinctively human attribute is his ability to communicate by means of visible and audible codes. This ability stems from several capacities, the most fundamental of which is hearing.

In the first year of life, much of the infant's active "mind" is concerned with "readiness to listen." This preparatory period involves the construction of a detailed pattern of conditioning and inhibition, pertinent to numerous events of sound and their meanings in his daily life, and interrelated with the rest of the sensorium. From this foundation, the infant's mind moves to a stage that can be called "readiness to speak." The link between hearing and speaking is language, the mind's use of various kinds of symbols.

As attention span increases, and stimulated by countless daily experiences, the mind's pattern-making processes evolve an intricate mechanism, the primary purpose of which is to receive and send messages. In the development and use of this instrument, the organism is able to undertake a highly refined function: to relate itself to other, similarly unique organisms by means of transmissible and receivable symbols. Once the infant in his second year develops what a linguist calls "demonstrable speech," that is, the use of a verbal symbol in reference for direct communication (baby, in his playpen, sees a familiar round object on the floor just out of reach; mother is passing by and gladly responds when baby, with a light in the eye, points to the object and determinedly says, "Ba! Ba!" and means it), the first major step has been taken. Thereafter, his symbol-making and symbol-using activities are intimately connected with the experiences of every waking hour.

Through hearing, he receives signals and learns to relate them to various events and meanings. What he perceives through audition becomes a part of him and, in terms of symbolic patterns, becomes a memory and a model. These models control the shifting patterns of his speaking; and in being able to hear his own speech and to compare it with what comes to him from outside, a feedback mechanism is set up. He learns to monitor himself. This makes it possible for him to refine the details of incoming and outgoing messages, to learn language, to move readily among different levels of reference, and to develop the symbolic nuances that connote man's highest degree of intelligence.

An important aspect of this concept is the idea that hearing is fundamental in this instrumentation of the "mind." The auditory mechanism is devoted to the absorption of the incoming information, its encoding and decoding in neuro-psychophysical activities, and in closing the loop of the feedback mechanism that normally controls language and speech. Unfortunately hearing, however defined, is a highly complex activity, employing a neurophysical circuitry that is not as yet fully describable. Moreover, the relationship of what is heard to what is understood, and of both of these activities to what is expressed, is even less well describable. Yet, most of our children develop language and speech, and learn with these tools of the mind. Many do not, however, and the prevalence of language and speech disorders is high. Special attention must be centered on the children who, for one or more of several reasons,

Dr. Hardy is director of the Hearing and Speech Center, Department of Otolaryngology, the Johns Hopkins School of Medicine and Hospital, Baltimore. His address was delivered on June 21, 1956.

do not have the capacity naturally to develop this feedback mechanism.

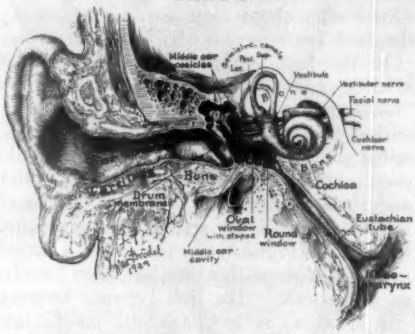
This lack of capacity may be caused by many factors. In one sense, the interrelated functions of hearing, language and speech mature in terms of critically balanced reflexes. The processes of conditioning and inhibition which serve these reflexes require several years for development, and are not fully developed until the child is seven or eight years old. Many events or conditions—prenatal, paranatal, or postnatal—may delay, retard or impede this development. These include the classical diagnostic categories: deafness, feeblemindedness, brain damage, psychosis, and the like. Unfortunately these categories do not define the extent of the problem, nor can they describe in useful detail the relation of the problem to the development of the child.

The term "deafness" cannot appropriately label the child who does not consistently respond to sound; it is not sufficiently analytical. The child may not respond because he is intellectually slow, or because he is in a state of neurophysical, or psychic unbalance. The classical categories of diagnosis are usually arrived at by a process of exclusion of other things: if such-and-such is not wrong with this child, then so-and-so must be. Present knowledge, albeit skimpy in many respects, has outstripped this approach. It can be demonstrated that hearing impairment is frequently associated with brain damage; that both may be related to intellectual limitations; and that serious incapacity in any or all functions relating to the mind's developing tools may seriously affect the psyche.

Our natural tendencies to generalize, to attach labels, to require that children fit into a particular group for developmental and educational purposes is, and should be, profoundly suspect. Intellectual retardation is much more than, and much different from, a measurement of a quotient in arithmetical symbols. The term "brain damage" is only an index, a pointer, for reference to various areas of functional difficulty. If it means anything at all, the term "deafness" simply points to the fact that a person does not act as though he hears; it gives no information about how much he may hear, or how he hears, or how he uses, or can learn to use, what he hears. As it is commonly employed, the term "deafness" reflects a fact of history: it came into folk-use as an empirical description of negative behavior long before there were reasonably accurate means to measure and differentiate, particularly to differentiate various aspects of the systems involved in receiving, perceiving and understanding sound.

This differentiation is currently the work of extensive resources in clinical audiology, and in psychoacoustic and neurophysical research. Among other perspectives, it is proving fruitful in current investigations to look upon the auditory sense organ as

FIGURE 1



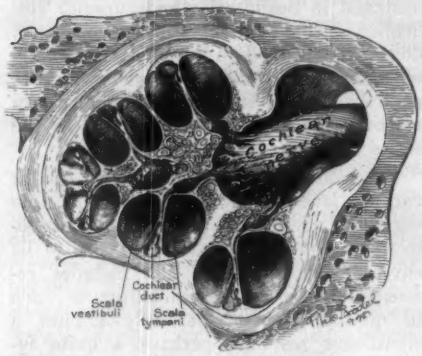
Broedel drawing of external, middle and inner ear.

a system capable of converting information into coded messages that can be decoded at higher centers. Incapacities in encoding, difficulties in transmitting and disseminating the coded information, and problems in decoding, then, constitute some of the effects of auditory pathologies or maldevelopment. There are several different levels, or steps, in the circuitry of human audition which must be considered.

Figure 1 is a well-known drawing of the anatomy of the external, the middle and the inner ear. Fully 80 per cent of the auditory problems of children are caused by some impeding factor in the conducting mechanism of the external and middle ear. Wax or foreign bodies in the external ear cause extensive reduction in the intensity of sound. As the impact of sound vibrations sets the tympanic membrane into motion, this activity is transferred in the middle ear into the mechanical vibration of a chain of three tiny bones, and from

there is transferred into movement of the fluid in the inner ear. One of the three passageways in the inner ear, the cochlear duct, contains the end organ of hearing, the microscopic hair cells which are attached on the inner aspect of a membrane approximately 35mm in length from base to apex.

FIGURE 2



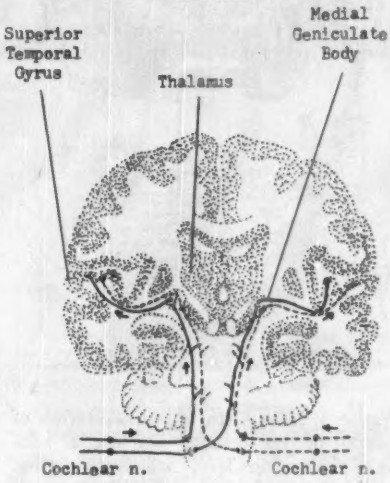
Broedel drawing of midmodiolar section.

As shown in Figure 2, energy from the hair cells goes into the ganglion cells, the first major connection in the neural transmitting system. The first two levels of audition, pickup in the external ear and mechanical vibration across the middle ear, are subject to reduction by various kinds of interference with their normal mechanics. Thus an accurate encoding process may be interfered with, at least in terms of amounts of energy transmitted along the pathway to the inner ear.

The physiology of the inner ear has been under investigation for many years and as yet remains theoretical in detail. The main point, however, seems quite clear. The inner ear converts sound from mechanical (hydraulic) to electrical energy, and is designed to encode a tremendous variety of acoustic effects with precision; it is an organ of analysis, capable of performing its task at the rate of approximately 5 milliseconds. It has a tremendous reserve: it has been estimated that the normal-hearing person in the course of a full conversational life rarely employs more than 1/10,000th of the capacity of this system.

We shall not be concerned here with the details of this analytic work performed by the cochlea; it is enough to observe that this is an exceedingly refined mechanism capable of converting and transmitting the electrical components of sound with great fidelity. The initial synapses (the first-order neurons) lie in the ganglion cells, some 29,000 in number. The great cable of the cochlear branch of the eighth-nerve system begins in the modiolus and, braided with the vestibular branch, goes through the internal auditory canal into the brain stem.

FIGURE 3



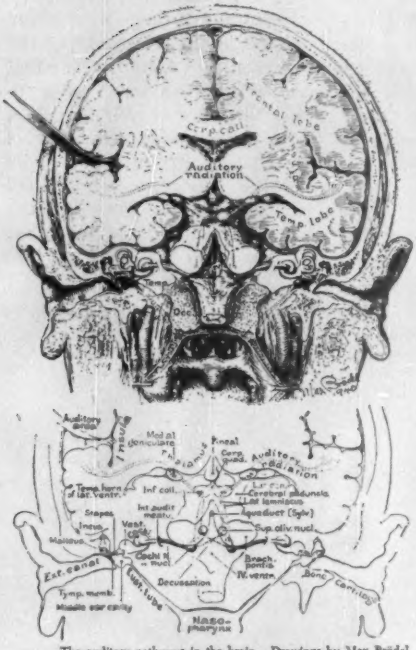
SIMPLIFIED VERSION OF THE AUDITORY PATHWAYS

(after Gardner)

Figure 3 is meant only to suggest the geography of the auditory neural system. It will be noted that the fibers from each cochlea cross over at the level of the pons, so that, from this level on, the transmission is a binaural function, innervated from both sense organs. The fibers move through synapse after synapse in the interbrain and on up to the thalamus, from whence they move out in a radiated fashion to their terminal positions in the temporal lobe of the cortex. All this, in terms of transmission and dissemination, is part of the auditory process.

FIGURE 4

THE ACOUSTIC NEUROLOGY



The auditory pathways in the brain. Drawings by Max Brödel, from the *1940 Year Book of the Eye, Ear, Nose and Throat.*

Figure 4, is an historic representation of the detail of this system. The spatial relations of the various levels are worth noting. The ventral and dorsal nuclei (second-order neurons) are way stations in a very complex process of decussation, or cross-over. It seems obvious that the connections in the medulla are designed so that signals from each cochlea are inextricably intermingled. This intermingling occurs at various stages and it is apparent that many thousands of cells are involved in these connections. The lateral lemniscus is the avenue from the brain stem; fibers through here go on to another important way station, the inferior colliculus, and many extend directly on into the medial geniculate body, the location of the auditory mechanism in the thalamus. Although it is well known that the auditory structure in the cochlea, in the cochlear nuclei, and in the auditory cortex, exhibits great refinement in its orderliness, not much information is available as yet about the structure in the interbrain. Many different connections to the sensorium are possible.

Of considerable importance, however, is information derived from experimental work with animals. It is clear that many of the alerting reflexes of audition are mediated in this part of the transmission system. Decorticated animals consistently respond to noises by pricking up the ears and by eye movements; these reflexes are mediated in the inferior and superior colliculi. In some fairly recent experiments, dogs were trained to respond to a series of tones fairly close in frequency; after auditory decortication, they could relearn responses to single tones but not to the series of tones.

The evidence in general suggests that at various levels below the cortex a wide variety of auditory responses occurs whereby the organism is related directly to its environment. Whether this includes refinement of pitch discrimination is open to question, but it certainly implies a significant reaction, perhaps a quite refined warning mechanism. Apparently, the principal subcortical center for disseminating auditory responses lies in the inferior colliculus; when fibers below this level are cut, responses are sharply altered and reduced in several different ways.

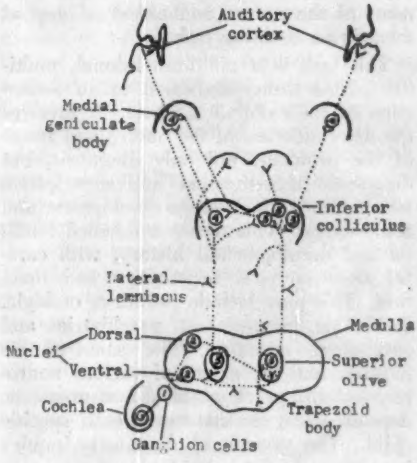
Some of the major relations in the system are made clear in Figure 5. We have been discussing these relations in the range between second- and fourth-order neurons; beyond the thalamic connections, the pathways radiate into the region of the temporal lobe adjacent to the Sylvian fissure. This is the auditory cortex, the principal function of which, apparently, is to serve as a projection area—to synthesize the electrical components of sound which were analyzed in the organ of Corti of the cochlea. Several experiments carried out in the past six or seven years indicate that, at least in animals, there are two or possibly three cortical projection areas which work together, and wherein both auditory cortexes are excited by each cochlea. The findings suggest that stimuli from the apical end of the cochlea (1,000 cycles and below) are diffuse and fairly generalized, while those from the basal end of the cochlea (2,000 cycles and above) are more sharply defined topographically. As in-

tensity is increased, the projection of even the higher tones is wider and wider spread.

These findings seem to relate directly to experiments done at the level of the cochlear nuclei in the brain stem, where single neural elements were stimulated. For high-tone responses, various elements followed a kind of preferential pattern. Each of the elements is presumably responsive to a single tone at low levels of stimulus. As intensity of the stimulus is increased, the response pattern becomes more broad-spread and includes more and more elements. No such patterns were discerned for low tones, however; with this stimulus, there was a generalized response throughout the neural structure.

Beyond this picture of cortical projection patterns of the auditory system, information from neurophysical experimentation does not exist. The connections in the cortical association pathways, involving probably billions of nerve cells, whereby sound, sight, smell, touch and the like are integrated in experience, and whereby symbolic reference and memory occur, can only be conjectured. Much can be learned, however, from careful consideration of some of the conditions that affect these mechanisms of audition and linguistic structure, and of some of the effects of presumed maldevelopment or genetic deviation observed in the assessment and reassessment of various children.

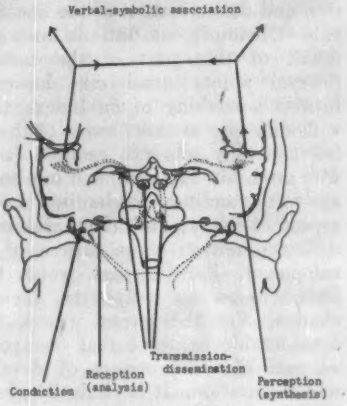
FIGURE 5



THE AFFERENT ACOUSTIC PATHWAYS

(after Davis)

FIGURE 6



Schematic suggestion of some psycholinguistic aspects of audition

Figure 6 represents an attempt to schematize what has been discussed thus far. We are concerned with a system designed to encode and decode messages. At various stages along this system, various break downs or misdirections can occur, and these can be described, in part at least, as knowable otological and neurological pathologies. These follow the structure of the system.

First, interference in the conduction of sound. This reduces the intensity with which sound reaches the inner ear, without serious effect in terms of distortion. With sufficient loudness, there is little problem. Most children with this kind of difficulty—either by itself or in association with other kinds of hearing inpairment—can be helped greatly by routine medical and surgical procedures.

Second, difficulty in the receptive function. Herein, damage to the instrument which analyzes sound is of principal concern. Trouble here causes acoustic distortion; the primary encoding process can function only in part, and the effect, in varying degrees, is that only a limited

amount of information can be analyzed for transmission. Children, never having known normal hearing, can adapt and learn with a damaged receptive mechanism far better than adults who have lost normal hearing. Rarely in children is there a total loss of this receptive auditory capacity.

Third, trouble in the system of transmission and dissemination of the encoded signals. Obviously, too little is known of the detail of this part of the instrument. Several points stand out, however, to furnish something of an index. Children with difficulty at these levels of the system fall generally into two groups: (a) those who are brain-damaged, and in whom damage to the auditory mechanism is only one aspect of many; and (b) children whose difficulty reflects some degree of maldevelopment. For the first group, there is little reason to anticipate spontaneous change. For the second group, there is considerable evidence that changes occur as part of the processes of development and maturation. It is clinically observable that many children in either of these groups receive sound, but are incapable of differentiating various details of intensity and frequency. Oftentimes they require, or desire, considerable more intensity than one would expect were the problem in the receptive part of the mechanism. Moreover, it is clinically observable that many children in either of these groups are aware of and are alerted by various gross sounds in the environment, that they often respond to the cessation of sound, but that there is discontinuity in their evident awareness and responsiveness. Often some will be observed to respond better to soft than to intense sound.

Fourth, distortion at the perceptive level, in the cortical projection areas, is evidently equally variable. In some children sound is evidently an active event of experience, but in a highly indiscriminate fashion; some learn to respond to environmental sounds, some do not; for some, sound apparently remains an unknowable event, and they learn to ignore the meaningless experience. In this group is probably a sizeable proportion, if not all, of the "totally deaf" children. For them sound has no pattern; the code impressed at the receptive end of the mechanism cannot be decoded meaningfully; they receive but cannot perceive.

Fifth, interference at the level of association and interrelation of the various elements of the sensory-motor cortex lies beyond the auditory system. Children with this difficulty may have only a sensory problem in that sound is meaningless to them in whole or in part; more particularly, speech sounds, with their implications for language, are meaningless tc them. Many of these children are obviously aware of and alert to sound, but dc not readily learn the significance of the language sign. For many, this is true of visual as well as of audible cues. In others, the difficulty may center largely in the motor aspects of language, as it not uncommonly does in adults who have suffered severe vascular lesions in the brain. In some, it may be a combination of difficulties, transcortical in effect, and usually with behavioral overtones. These are not auditory, but language disorders, specific or general.

Diagnosis Is an Exacting Task

Any and all of these breakdowns in the auditory and linguistic mechanisms may take a severe toll in terms of the child's total behavioral picture. Precise ascertainment of the nature and extent of any of them is an exacting task.

This task is a multidimensional, multidisciplined thing, dedicated to an assessment of the child as a whole. It involves the determination of the nature and range of the problem; not only diagnosis, but diagnostic measurement and description, with a view to long-range development and achievement. This means a detailed familial and developmental history, with careful attention paid to etiology and function. This may include pediatric, otologic, audiologic, neurologic, psychiatric and psychologic appraisal. The extent of this inquiry, and the extent of various neurophysical and psychophysical measurements, depends upon the nature of each specific child. The process of diagnostic inquiry is centered in the individual, not in classes of problems.

In terms of audition, an extensive battery of observations, tests and measurments is included. Special techniques of assessment,

like GSR or EEG audiometry, can be highly valuable ancillary measures. In trained hands, a GSR or EEG measurement is not simply a matter of observing responses to sound in order to define the function of the hearing mechanism; both can be highly revealing of many details of neurophysical function, and can help materially in defining where the site of the trouble lies —in conduction, reception, transmission, perception or association.

It is worth emphasizing that no single test can fully describe any given situation, but a battery of tests usually can, particularly when the battery involves inter-interpretation among a group of specialists representing different perspectives. Moreover, one is always dealing in children with an imminent, development process, not a static state of affairs. Not only assessment but reassessment is necessary. This applies equally to clinical and to pre-educative and educative procedures. The combination of diagnostic teaching with diagnosis and diagnostic measurement is invaluable.

A profound lesson to be learned from current information is that one is rarely dealing with a static entity—this child is deaf, that child is hard of hearing, another child is brain-damaged, a fourth is disturbed—each kind of problem composing a class of problems that shall forever be trained in a particular regimen. This is a stultifying concept that is rather more a feature of history and a semantic misnomer, than the result of a careful assessment. Usually, at best, one is dealing with a multiple problem, the interaction in the individual child between the cause of the problem and the effect of the problem on the development and behavior of the child. This is only compounded when there are multiple handicaps involved. Careful integration between clinical and educative findings is indicated, and it goes almost without saying that any handicapping condition so severe as to require special training also needs periodic reassessment.

Something can be learned, in this regard, from study of some of the problems that exist in terms of the locus of the impairment, and the status and needs of the children. Assuming that there are several possible sublevels, let us consider the five principal levels: conduction, reception, transmission and dissemination, perception, and association.

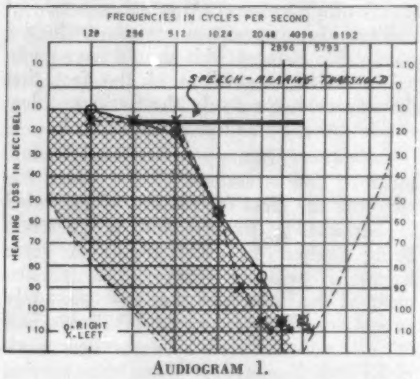
Conduction: The problems of conduction are usually not abstruse, with the possible exception of some of the complications of allergy. They lie clearly in the province of clinical otology and are usually amenable to medical and surgical intervention; they are particularly amenable to preventive medicine, and early case-finding and diagnosis are imperative. It is worth mentioning, however, that other levels of auditory involvement commonly include a conductive element; this should have medical attention, regardless of the fact that therapy cannot remedy the basic problem —this is only intelligent prophylaxis.

Reception: Damage to or maldevelopment of the structures of the inner ear compose the classical picture of profound impairment, a picture that is currently being revised on every hand. A great weight of evidence suggests that impairment of the inner ear does not commonly exceed an average loss of 70-75 decibels (this is substantiated by some new work in EEG audiometry). When this portion of the encoding mechanism is damaged, the effect can usually be described as acoustic distortion. A breakdown at the cochlear analytic level means that insufficient information can be encoded.

Children learn to talk naturally because and as they receive and perceive sound. For neurophysical reasons, serious impairment of the inner ear usually affects the encoding of high tones rather more than low tones. This produces psychoacoustic imbalance; that is, not only is insufficient information encoded for transmission to the higher neural levels, but also the effect on the understanding mind is apt to be a matter of negative adaptation—if all sound, including speech, is very much the same, it is small wonder that the young child may readily give up trying to make difficult discriminations. When only cochlear damage is involved in children, however, amplification can usually be of great help in promoting the development of the feedback mechanism necessary to learn how to use sound and to understand it. This is easier for the child of good intelligence, without doubt.

The earlier the child's problem is understood and met, the better are the possibilities that he can learn to develop this feedback mechanism to some useful degree for the processes of learning language and useful communicative habits. Most children whose problem centers in cochlear damage like sound that is loud enough to reach them, and can learn to put it to use even when it is badly distorted.

FIGURE 7

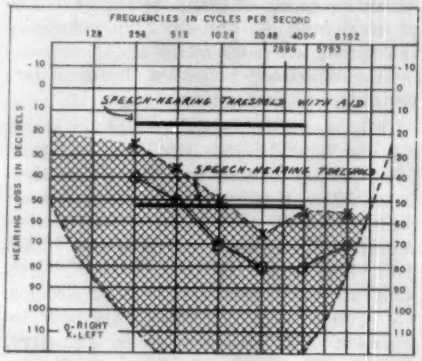


AUDIOGRAM 1.

The audiogram in Figure 7 illustrates this point. These are the pure-tone threshold measurements of a child now eight years old. Pregnancy and delivery were complicated; the newborn was cyanotic and required resuscitation for 40 minutes. There were other complications in the first year: several attacks of tonsillitis and otitis media, and a severe measles. General motor development was good. The parents were aware at an early age that the child's hearing was impaired, and consistently talked in her ear. She communicates well; her language is precocious; her speech reflects the diminution of auditory acuity. She has had problems in school because of her natural speed in reading, and because some of her teachers could not credit the fact of, and the nature of, her auditory difficulty. She often "ignores" sound when it comes from some distance, because she does not understand it. This year she was promoted to third grade and her adjustment was much better. Her I.Q. is 140; this helps. Other children with such a problem may not so readily develop language; but they would be no more impaired, physically, nor would they potentially be deaf children.

Figure 8 illustrates quite a different thing. There was a severe toxemia of

FIGURE 8



AUDIOGRAM 2.

pregnancy. Many diagnostic measurements have been consistent in this picture of a severe binaural nerve impairment. This is a cochlear impairment, a problem of receptive encoding. At 27 months the child had a vocabulary of about 15 words, learned on her parents' laps. She has worn a hearing aid since the age of 28 months. She is now 8½ years old, and is doing well in the third grade of a rural public school; she is socially mature; her family handles her excellently. Her reading is up to grade. She has an I.Q. of 98 on the Stanford-Binet, and of 115 on the Arthur Performance.

Obviously this child has, and will continue to have, communicative problems; but she is getting along well and is holding her own in a hearing world. Her ability to discriminate fine differences in speech sounds is steadily improving. Of some interest is the fact that her speech-hearing threshold, unaided, is entirely consistent with the findings by GSR audiometry; by subjective, pure-tone audiometry she is still 10-15 decibels below the GSR levels. Few children with serious auditory impairment can respond subjectively to their physiological limits.

It is readily apparent, from even a casual consideration of psychoacoustic facts, that our language is highly redundant. Other-

wise, children with frequency distortions like these could not set up a feedback mechanism to control oral-auditory symbols. When they do not so learn, through a combination of visual and auditory perception, it is well to look elsewhere than the cochlear mechanism to find out why.

Transmission and dissemination: One is on less sure ground when the auditory instrument is damaged or maldeveloped in the areas of the brain stem, interbrain and thalamus. There are so many possibilities in the nature and extent of dis- or misconnections. It is known that in some of the Rh athetoid children the trouble often centers at the level of the nuclei in the brain stem, where nuclear tissue has been damaged by deposits of pigment from the blood cells. We have a sizeable group of children with Rh incompatibility in the background, who show no neurologic signs of motor damage, but who have this same auditory deficit. It looks like a typical nerve-type impairment, not profound, often quite mild; but the children want much more loudness than would be expected with cochlear damage.

Many children with difficulty at this level are inconsistent in their responses, in gross testing as well as in special measurements like GSR audiometry. They are sporadic, in-and-out. In some notable proportion, particularly among those who show no signs of brain damage or language disorders, there is definite improvement in function as they mature to age six, eight or ten years. The reasons for this change are as yet only hypothetical. The most promising possibility, perhaps, is that the development of the nerve sheath has been delayed; and, as it develops, the integrity of the transmission system is established. That this can happen is a function of the effects of their training and their exposure to oral-auditory stimulus, however; one seriously doubts that they could learn to put to use their improved audition without this stimulus.

A very considerable amount of research is going on, in efforts to understand better some of the relations involved here. There is reason to think that some of the early viral-type infections, prenatal or postnatal —say, within the first six-eight months after birth—might seriously retard the completion of the nerve-sheathing in the brain stem and interbrain. This or something physiologically like it, could well cause bizarre features in the transmission of the electrical components of sound from the cochlea to the auditory cortex.

Perception: For the purposes of this discussion, and in view of the dearth of experimental information available, it is reasonable to consider the transmissive and perceptive levels in close relationship. If it is true that the function of the auditory cortex is to decode the message, to synthesize the information, and to project it in a pattern that is relatable to other cortical functions, then trouble in either the neural pathways or in the auditory cortex would have similar effects so far as consistency of differentiation and discrimination of sound are concerned.

Children and adults with auditory perceptive problems are often aware of sound as an undifferentiated event; differences in loudness do not clearly register, and there may be confusion in pitch discrimination. With another group, sound is meaningless; these children are subjectively unaware of the event; but they can learn oral-symbolic language. Perhaps a few cases that have been studied with great care will illustrate some of these problems.

The first is a 17-year-old, a graduate of an oral school for the deaf. Her progress in learning was quite good. She was lipreading and attempting words after two years in nursery school. She had been thought to have hearing impairment of the order of 90-100 decibels. Her intelligence is normal: 120 in performance and 91 in verbal, by the Wechsler. She has a useful, normal vocabulary. She has always complained that a hearing aid is too noisy (as do many of the adults who develop auditory cerebral difficulties). She has no discrimination for pitch. She has a quite "deaf" voice. She is aware of the presence of a voice in her environment, but cannot understand without vision. There is surely no perceptive patterning here. The receptive mechanism is normal; a delayed speech test gives negative results (this test is predicated on a reasonably normal feedback mechanism). She receives, but does not perceive, sound. There is no evidence of

brain damage, nor of language disorder. She has a "deaf" brother.

Another child presents a variation and a difference. She is a third child; the two siblings are normal in all respects. She was first seen when she was 4½ years old; parents had been worried about her hearing for the previous two years. Delivery had been a breech; neonatal appearance was good. Gross motor development was normal. She babbled normally; speech development was retarded. She began to use sentences at the of 42-48 months. When we first saw her, her speech was understandable, and there was a fair amount of language understanding. Her voice is shrill and high-pitched. It became apparent that she learns language quite slowly. A concept requires firm reiteration and reinforcement; once she has it, it is well and consistently retained. Despite the fact that she could follow conversation when her attention was centered, speech-hearing responses by audition alone were quite variable. The GSR observations were most interesting: conditioning was very slow, as were initial responses; once conditioning was established, however, it was maintained with little reinforcement. Before the test was completed, she made many overt responses to minimal pure-tone stimuli. The receptive end organ is normal.

She was hyperactive; attention span was short. In general, she behaved like a little flea. Were it not for the fact that she had developed language and speech, albeit restricted, the picture would be very like that of some of the developmental aphasias. The problem is apparently one of imperception at the level of the auditory cortex; the synthesis of sound, its patternmaking structure, does not readily come into being. That this may not also involve the upper neural transmitting system, we do not know. The fact is, however, that the signals do get through; the main trouble apparently lies in the decoding process.

Much experimental work has been done with mild-gain hearing aids for different ones among these children with auditory-neural problems. With some, a mild-gain aid seems to promote attention centering, and it may well be that the increased loudness helps in neural transmission. In general, the aid apparently does little good when the problem is focused in the language centers, above or beyond the auditory structures. The child last referred to is now using a hearing aid and likes it; later we shall know more about what it has to offer.

Another problem is a boy, now thirteen, whom we first saw at the age of seven. He was in a school for the deaf as a day student; there was a question about how much usable hearing he had. He had had no organized experience with audition. There was a history of considerable emotional disturbance in both child and parents. Mother had a severe viral infection in the fifth month of term. The boy was retarded in general motor development and did not began to talk until he began school at age five. The test findings indicated a deep hearing impairment, with limited speech hearing at 80 decibels. At age nine,two years later, he had a speech-hearing level of 68 decibels, with close agreement between subjective and GSR audiometry; with an aid, his speech-hearing was brought to 22 decibels with limited materials. He was improving in language and speech. The following year he was changed to a day school with a group of hearing impaired children.

After three years it was readily apparent that perceptive changes had occurred. He was aware of voice at 26 decibels, unaided. His pure-tone audiogram by GSR was normal; by subjective audiometry it was extremely variable, as though he still had trouble in interpreting sound. By GSR, he was readily conditioned; he was more responsive to tones at 15-20 decibels that at 80 decibels. Rechecked after the GSR test, he subjectively reported hearing most tones at 15-20 decibels. In a structured situation he understood three different frequencies as low, medium and high. With random presentation he could not differentiate them. He is linguistically fluent; in rapid, connected discourse his speech is poor.

This picture means two things: (1) this is primarily a perceptive problem; (2) there have been material changes in his perceptive function in the past six years. One thing more: the boy's mother was confused when these last findings were discussed; he was writing with pencil and paper in the playroom and mother asked, "Can you really hear the scratch of that

pencil?" He looked up, grinned, and replied, "Oh, yes. It goes st-st-st!"

This state of affairs is typical of several hundred which can, and soon will be, documented. Incidentally this boy has worn a moderate-gain aid for six years and will not be without it. Nor is this a psychogenic problem.

Yet another child, now nine years old, presents a comparable picture, yet with some major differences. We have known and followed this child since she was nine months old. As an infant she did not respond to sound. A few months later she was tested at a 90-decibel level by GSR, but could not be conditioned. At the age of three she began to use a hearing aid and wanted to wear it to bed. With the aid, she was aware of voice at 55 decibels. By age four she was talking in three- and four-word phrases. She has been phenomenal in language development. Her speech at age four was muffled and slurred; it is now fairly clipped and precise as is her mother's. Two years ago it became apparent that she did better with auditory patterns with less power in amplification. A year ago she was retested with the full battery. The subjective audiogram ranged from 55 to 90 decibels, with no responses above 2000 cycles. The audiogram showed a normal end organ, with quite good conditioning. She could not differentiate loudness.

A few days ago, mother reports, the child was watching television. Her mother called her from upstairs and she came running. She is beginning to discriminate "picture and sound" relationships in both loudness and pitch. Her phonetic imitative patterns are becoming secure, both with and without her aid, which is now held at a mild-gain level. Changes have been taking place. The history is entirely negative, except that there is a second cousin with an almost identical problem.

Association: Consideration of the problems of language disorders will be brief. Not uncommonly there is evidence of perceptive difficulties in the preschool years. Problems of language disorders need not be specific. They may involve the sensory or the motor complexes, or both; they may involve a diffuse transcortical disability, including several modes of language reception and expression; they may be associated with various entities of brain damage, or maldevelopment, or retrogression, or they may be quite specifically relatable to verbal-symbolic associations.

Many of these children can no more learn to lipread by "natural" means than they can fly; many do poorly in gestural or manual language, as well. They are commonly mistaken as hearing impaired or as totally deaf. Their experience with subjective audiometry is variable; some can learn to do very well; some can do nothing at all. Most of these children perceive sound quite well but cannot employ what they perceive. What is most obvious is that they cannot naturally listen, understand, store and recall symbolic structures involving a time order and a stress pattern. They cannot learn from training procedures current in many schools for the deaf. Often they are the outstanding failures of such training, despite the fact that their hearing is unimpaired and that their intelligence in performance is good.

Unenlightened Zeal

Perhaps one more case history will illustrate the point. Last fall we saw a girl who was just eight years old, the second of five children. Her mother had hemorrhaged seriously through the first several months of term; the baby weighed less than four pounds. It was a breech delivery; the infant was cyanotic; she was transfused, kept on oxygen, and remained in hospital for a month. She was slow in development on most counts. She had always responded to various kinds of environmental sound but was thought to be deaf with residual hearing. She had been in one or another school for the deaf since the age of three. There is ample evidence that she both receives and perceives sound and speech. She was able to learn and repeat eight or ten new words in the course of clinical evaluation, but she could not remember them nor put them to use. All this, despite the fact that the child's current teacher had told her mother that she had no useful hearing. As mother reported it, teacher had said, "You might as well try to teach a club-footed child to dance, as to teach this child to hear." With the best of intentions on the part of the teacher, this

can most kindly be called unenlightened zeal.

We found her problem to be receptive aphasia, and there was ample reason for this is in the natal and neonatal history. An interesting aspect of the situation is the response from the principal of the school. He wrote: "This child has certainly been saturated in oral-auditory stimulus. . . . We find, however, that her ability to retain what she learns, either aurally or visually, is well below normal." Well—this is precisely what aphasia means. If this staff would stop looking at a "deaf" child, and begin to study an aphasic child, they would all learn something and so would the child.

It is quite apparent that various schools for the deaf have many such children, who are failures under any methodology designed rigidly for some classical picture of "deaf" children. There is ample demonstration, however, from more than thirty years of experience in at least one major institution, that aphasic children cannot well learn by methods that are appropriate for children with a different problem, and that they do learn by methods that fit their capacities and needs.

Here, then, are four levels of impairment of the system whose function it is to encode, transmit and decode auditory information, and a fifth level which has to do directly with interference in language learning and use. It is inconceivable that the four having to do with audition in children can well be classified under a single category labeled "deafness." There is so much variation among the levels, and even more among the children who have these difficulties.

This factor of differences among pathologic conditions, and of individual differences among children, becomes extremely important when each child's needs are assessed. It is almost unthinkable that any single set of procedures, without flexibility or variation, could be made workable for a group of children, and still promote in each child the achievement of his potentialities.

Let us suppose that in a single group, brought together in a class at age 4½ years, there were this distribution: one at Level I (conduction); three at Level II (reception), all severe impairments of, say, 65 decibels; two at Level III (transmission); three at Level IV (perception); and one at Level V (association)—for a total of ten. By diagnostic methods still widely in use, such a group could readily be assembled as a homogeneous gathering (all presumably deaf) in any major city or in any school for the deaf. What are the possibilities of this group, and what methods of teaching would be ideal?

The possibilities are limited only by the child's potentials, and by the acumen and versatility of the teacher and her supervisor; and there could be no ideal methods for the group—there are too many different problems. Indeed there should not be such a group. All might profit from the use of hearing aids, some more than others. There is no single aid of a given quality or output which would be right for all the children. Some might learn oral-auditory language quite readily, others poorly, others not at all without intensive, structured training.

In broad generalization, Point 1, then, is the need for variable differentiation. It is most important for clinician and educator to discard the concept that they are dealing with some supposed entity commonly labeled "the deaf child." The well-known definition of 1937 is scarcely adequate 20 years later. In some large part, our children are what we make of them; yet, oftentimes, an educative scheme is devised according to presupposed limitations of the child and he is neither asked nor expected to struggle to achieve more than his minimal capacities make possible. This is a philosophy of mediocrity that is suspect.

Point 2 follows from this: every child with a handicapping disability severe enough to interfere with the learning of language and speech deserves periodic reassessment. Children change, as should methods of training. This involves three steps, or processes. First, careful clinical reassessment, not only of the hearing and language mechanisms, but also of the relation of the use of these mechanisms to the development of the child. Second, a thorough, intelligent process of diagnostic teaching, wherein various ideas and situations are worked with in a constant and

(*Continued on page* 309)

Open Forum for Parents: Home and Parent Guidance

A 1956 Summer Meeting Program and Discussion, June 19, 1956
Alexander Graham Bell Association for the Deaf

MODERATOR: MRS. SPENCER TRACY

MRS. TRACY: Today, I think, there are few people in this field of special education who do not accept, at least in principle, the need for some kind of parent education —parent guidance, parent participation, call it what you will—but some type of real help for parents of young deaf children.

There are still differences of opinion as to the kind of help and the extent of it. It seems to me that this is all to the good. Honest differences of opinion, leading to frank and thoughtful discussions among people with open minds, should serve only to stimulate and to refine the thinking of all of us. This is particularly true if we are eager, as I am sure we are, to meet the needs of this important group—the parents —and to utilize to the best advantage a much-neglected though long potent force in the education of deaf children.

I feel that this program gives us an opportunity for such a discussion. We are to start with two papers on the subject of home and parent guidance. Miss Marjorie Magner, of the Clarke School for the Deaf, will outline the kind of help that is given to parents in Manchester, England, under the direction of Dr. and Mrs. Ewing. Mrs. Alathena Smith, of the John Tracy Clinic here in Los Angeles, will describe the program and the help provided at the clinic.

The philosophy underlying this help, and the approach to it, may be different in each instance. I am sure there is a difference in actual program. There will always be differences in programs because at each center, school or clinic the facilities and the opportunities must vary; unless a center is founded on or built around parent education, the program for parents must be fitted, if provided at all, into an existing and often tight program.

One thing is certain. We need to learn more about parents themselves—how they feel; how they react to certain approaches or methods of help; what they want, feel they need and can use; what they have been able to use.

The remarks of the six parents who follow Miss Magner and Mrs. Smith should serve to shed light on many problems which not only parents must face, but those who are concerned with helping parents. Regardless of philosophies and programs, of methods and materials, the proof of the pudding remains the same.

Open Forum for Parents: Home and Parent Guidance

Guidance at the John Tracy Clinic

ALATHENA J. SMITH
DIPLOMATE CLINICAL PSYCHOLOGY, JOHN TRACY CLINIC

THE philosophies and the sciences, the psychologies which all of us have studied in our academic experiences, come to mind at this the season of college commencements and reunions.

The physicist discusses sound in scientific, objective terms; the psychologist knows well that a sound perceived is what you are yourself at the moment. When you are in love, any stimulus is romantic; if you are in despair, the same sound opens the floodgates of grief; if you are angry, the response is tumultuous and irritations are multiplied.

This illustrative material is used to make the point that the diagnosis of deafness in a child should not be considered apart from the emotional condition of the parents at the time the diagnosis is made. In the urgency of that moment and

throughout the prolonged necessities of the education, training and maturing experience of this child, the circular relationship between his difficulty and the availability and maturity of the parents is inextricably interwoven.

We are learning the fallaciousness of the oftheard statement: "If I could get rid of his parents I could teach this child." The parents' influence on the child should not be dismissed so lightly. It is an oversimplification to presume that healthy personality growth can eventuate if a void in the parent-child relationship is permitted, encouraged or condoned.

Within a week a professional person, well trained in many specialized fields, has rationalized the fact that her agency does not work with parents by stating: "We feel parents are so inadequate that we cannot put any responsibility upon them." She continued, "We have so much else to do that we do not try to work with parents." This point of view is diametrically opposed to the philosophy of the John Tracy Clinic.

The John Tracy Clinic does not take the responsibility away from the home. It devotes a great deal of time and attention to helping parents become adequate. Yes, many parents do feel inadequate, but it is important to help them become adequate, to give them the feeling that they can cope, to help them find their way. There is much else to do of a specialized nature, but the professional person who develops the skill of working with the parents, rather than without or against them, will find even the most specialized contribution augmented in effectiveness.

Many of you know the John Tracy Clinic through its Correspondence Course for Parents, which has been in existence since February 1943. Its director is Mrs. Harriet Montague, well known to many of the members of the Alexander Graham Bell Association for the Deaf through her early work, with the Volta Bureau, to promote the oral education of the deaf.

The course is flexible, it can be adapted to children from 20 or 22 months to 4½ or even 5. It covers a year's work that an untrained mother can do at home, and provides a program for both parents and child.

A young deaf child needs constructive activity and his mother and father need the assurance that they can provide this. Through its mimeographed directions information is supplied, and through the avenue of personal letters, Mrs. Montague gives support and reassurance to the parents of deaf children around the world. A total of 7,539 families in 54 different countries have received all or part of the course to date, and of these 1,118 are currently enrolled.

The specialized teaching program at the clinic itself, which is carried on by our teachers of the deaf, entails unique responsibilities. The department referred to as the Tutoring Department is directly responsible for the phases of the program which help the deaf child in his great need —the establishment of communication skills.

Basic to the work done by the tutors are certain teacher competencies: (1) Knowledge and understanding of children. (2) Skill in teaching children, including special skills needed by the teacher of deaf children. (3) Ability to teach parents and direct them as they participate in their child's educational life.

There are three levels of classes for parents in "The Development of Communication Skills." These classes provide basic informational material. There is the teaching of children and the opportunity for parents to observe their own and other children being taught. There are regularly scheduled individualized conferences of parent and tutor, where help can be tailored to the particular parents and their child. Finally, there is parent teaching under the direction of the tutor. This teaching is in the areas where parents can and should function.

Among our numerous parent-child teams in the Demonstration Nursery School, the Friday Clinic School, the Teacher Training Laboratory, there is a wide range scale in terms of the amount of participation in the tutoring program. When parents can participate over a long-term period, obviously more can be accomplished.

I'm sure that some of you are interested in the program of our Demonstration Nursery School where we insistantly demonstrate that "a child is a child before he is deaf." This is our most limited service in terms of numbers of enrolled parent-child units, yet it affords the greatest amount of

concentration for these members. In the Demonstration School we have a preschool teaching program just as many other of your schools have. We run a regular teaching program for the children and teach the parents in addition. Our aim is to have teaching that is coordinated between school and home, and language teaching for the child around-the-clock every day.

Teacher Training Program

For three years the John Tracy Clinic, in conjunction with the University of Southern California, has been actively engaged in training teachers of the deaf. The course may be taken at undergraduate or graduate levels of study. A minimum of a full year of study, plus a summer session, is necessary to complete the program.

In designing our program we took into consideration those standards which had been set up in the field of the deaf. These included the Conference of Executives of American Instructors of the Deaf, the Alexander Graham Bell Association for the Deaf, and the Department of Special Education in the State of California. Our graduate students receive accreditation from the Conference of Executives, the State of California, and a special certificate from John Tracy Clinic. This year seven students completed training to teach the deaf. We anticipate doing as well or better in the future to aid in the teacher shortage in this field.

Our program probably differs from other teacher training programs in that we offer, in addition to the main areas of instruction, the opportunity to work with parents at our clinic. Our work ranges from helping parents in an educational program to helping them understand their problems. And so we come to the point of describing in more detail what is probably a less familiar aspect of the work at the clinic.

The operational structure of the clinic program has many facets—the consultation service, which includes a hearing evaluation, an appraisal of development and behavior, and what is sometimes called a "creative listening" situation where parents are helped to understand their feelings with regard to this problem.

It is not easy to learn to listen, but it is possible. As Dr. Miriam Pauls of Johns Hopkins University once said: "We have been looking through the wrong end of the telescope." We professional workers have been looking at ourselves and what we have to say to parents; instead we should have been keeping our mouths shut and been listening to them.

If we could honestly open our minds to learn how parents feel, and reflect to them our acceptance of their feelings and our understanding of them, then they would be freed of the barriers to creative living.

Creative Listening

This quality of creative listening is a very effective agent for improving the individual's relationships and ability to communicate, and may even extend as far as altering his basic personality structure. It is utilized in the classes in child development and parent attitudes in the first year evening classes, and more intensively in the advanced work in the second and third year.

Most parents learn during the first year that the biggest service they can do for their children is to become happy, well-adjusted people themselves, and they are then ready to undertake group psychotherapy at more penetrating levels. This group meets at 9:00 o'clock and works until 5 minutes of eleven. This year we had parents who made a 250-mile round trip every Tuesday evening from September to June to attend one of the classes.

The methods used in these classes, to create a climate where emotional growth is possible, are no different from the methods which may be used to help people everywhere. Some of them are very simple in themselves and could be utilized by anyone who would accept the following principles:

What we do is determined not so much by what we know as it is by how we feel about things. It does little good to say, "be patient"—"relax"—"go with your child"—"stop forcing him," to someone who is not relaxed, not trusting or accepting. To change in the desired direction is not a matter of being told, but of emotional growth.

We start out by accepting the fact that parents are people, with their own needs, immaturities and unresolved tensions.

We try to understand that each individual's way is peculiarly his own, and he has as much right to it as we have to ours.

We should begin our work with parents where

they are, as surely as we begin where children are.

Parents need nonjudgmental acceptance.

We can help them more deeply by understanding them than we can by teaching, telling or advising.

We do not have to give people answers if we can be available to understand them, and, given this understanding, parents will grow.

The goal in this work is not so much a matter of telling, or doing something to an individual or for an individual, as it is to provide a situation and a condition under which that person can grow.

I know of no better way to bring to life the method that is used in the classes, and in counseling with parents, than to quote from one mother. The following was simultaneously transcribed as the mother was talking; it is verbatim, including grammatical errors and pauses:

"I don't know where to begin. . . . I bet nine out of ten mothers start out that way when they come in here to talk. . . . Pause. . . .

"It is too bad that Alice is afflicted, but sometimes I think it for the best. . . .

"I know that people who haven't been through an experience such as we have had at the clinic wouldn't understand that statement. I suppose it is dangerous to make it in public because of what it brings to mind in those who do not understand this experience. . . .

"What I mean is that life is so much easier for all of us now. Instead of Alice being our burden she has become the precious source of strength and understanding for a new life for the whole family. It was she who brought us to the clinic. Everything is B.C. at our house or A.C. "Before clinic," "After clinic." . . .

"I find that I can accept the problem of deafness now and really face it instead of butting my head against the wall. And that holds for all our problems. I have learned to sit and relax which I could not do before. And little things don't irritate me the way they used to. I seem to get more done. And if I don't get it done, it doesn't bother me. . . .

"I guess it is just an acceptance of things as they are. . . .

"I find for the first time in my life I have the courage to uh . . . go ahead with ideas that I have had . . . Uh. . . .

"It is just like a new life. . . .

"I find that I can control the children better. I am not willing to be walked on any more. And, funny thing, I think they appreciate it more. Silly, isn't it? Just because you like yourself for the first time in your life, you find that others like you better. Even my husband likes me this positive new way.

"You know, unless you appreciate yourself and respect yourself you cannot expect others to do it either. . . .

"I think, well . . . I had the wrong idea what was a good mother. . . . And that has always been my ambition, to be a good wife and mother . . . but, I didn't have the right conception of what it was. . . .

"I suppose it stems back from my childhood, etc. etc. . . . In my childhood experience a good wife and mother slaved for her children and gives up everything and in return her children are supposed to appreciate it. From my own experience they don't, really. . . .

"After all, the family is a unit. . . . And it should be share and share alike, and when you throw that balance off, why . . . I don't think any one in the family really appreciates it.

"Martyrdom and self-sacrifice are of no value. . . . No, neither to the one who becomes a martyr or to those who benefit by the martyrdom. . . .

"I know I felt that I was just a drudge. And, at any time I spent any money on myself, which was not very often, I felt as if I really should be buying something for someone else in the family and that they in turn should appreciate that I was sacrificing for them. . . .

"While you may get appreciation that way, it is not a good appreciation. . . . Now I feel that uh. . . . For the sake of everyone concerned, mother should look just as nice as the children and the children should share in the work. . . .

"Father is no longer a dictator. . . . He is a king, but it is shared . . . we all share in the monarchy. . . .

"I really think that the whole family is much happier. . . .

"*I think these courses should be mandatory for parents, so help me! I don't think a person can do it alone . . . without help.*

"I think children cannot only feel your bad feelings but they know something is wrong by the way you act . . . they are at a loss because you are at a loss yourself. . . .

"The John Tracy Clinic has helped me find my way."

The clinic likes to think that through its various services—the parents leave us in a position to do some very real supplementary work with their children, able to find their way. That given specialized education from professional sources they can go right on with their children through the years, being a responsible agent in the future planning for their children's education. They will be in a position to evaluate the various services which are available to their children and should be ready to be a part of their child's development not only in the language arts but also in personal and social relationships.

I have not discussed the ways that parents help each other, but I am sure that in the panel discussion the parents will reflect the results of this sharing and perhaps help us to find even better ways of helping them.

(Editor's note: Other papers read during the 1956 Summer Meeting open forum for parents will be published in later issues of the VOLTA REVIEW. *Miss Magner's will appear in October.)*

Action Verbs and Their Meanings

ALICE STRENG

THERE is hardly a word in the English language with but one meaning. Verbs are no exception. Fries and Traver[1] report an average of about 25 different meanings for 850 words found in the first 1000 words of the Thorndike word list as recorded and illustrated in the *Oxford English Dictionary*. Besides, modern English employs a device for coining hundreds of new verbs by adding adverbial modifiers to existing verbs. These verb-adverb combinations are designated as double verbs by Fitzgerald.[2] The italicized verb forms in the next paragraph are examples of such verb-adverb combinations.

The next morning Patty *woke up* (awakened) early, and *put on* (donned) her clothes quickly. Without stopping to eat her breakfast she ran to the barn to *look after* (attend) Snowball and her new kittens. The tiny things *had curled up* into five little balls but Snowball was nowhere in sight. Patty *picked up* (lifted) the littlest kitten and cuddled it in her arms. Just then Snowball *came back* (returned). She had been out *hunting for* (seeking) a mouse.

The deaf child has much to learn before he masters the mysteries of verbs. In the study of verbs, morphological changes (changes in verb forms) and syntax (the relationship of the various words in the sentence) cannot be disregarded. They are an integral part of the complex nature of verbs and of verb study. However, this discussion will not emphasize their morphology or syntax but rather the teaching of multiple meanings of action verbs.

Selecting the First Verbs

Clear concepts of the meanings of verbs can best be developed through real experiences. The teacher of young deaf children uses verbs constantly when she speaks to the pupils in her class. As they play with their toys or handle creative materials, she may say: "Put the truck on the shelf now. We are going out to play;" or, "Look at this picture. Bobby drew a house." She builds up an understanding of the particular meaning of a verb as it relates to a particular situation.

It is the responsibility of the teacher to select the verbs she plans to teach, for she cannot teach all of them at once. If it is her purpose to give the children verbal command over their daily activities, she will choose those verbs that fulfil their needs. If she is more interested in preparing them to read preprimers, her selection may be quite different. Needless to say, the functional approach is the better one, though eventually a reading vocabulary must not be disregarded. However, if a primary teacher considers every language lesson to be a reading lesson, children will soon gain a reading vocabulary as well as one for communicating their needs.

The teacher may want to check the vocabulary that she builds up with her class against some of the well-known word lists like those of Gates,[3] Thorndike[4] and Rinsland.[5] She may also want to refer to the verb lists in the C.I.D. Outline.[6] It must be kept in mind, however, that these are not semantic lists. For instance, when the word *break* appears on the list it cannot be ascertained whether the child should be taught one, several or all the connotations of this word, as, *break a window, break the chalk, break a pencil, break an arm, break the bank, break a colt* or *break one's word.* Word lists which are not annotated, therefore, are really not very functional for teachers of the deaf.

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[1] Fries, C. C. and Traver, A., *English Word Lists, A Study of their Adaptability for Instruction.* Ann Arbor, Mich.: George Wahr, 1950.

[2] Fitzgerald, Edith, *Straight Language for the Deaf.* Washington, D. C.: Volta Bureau, 1937.

[3] Gates, A. I., *A Reading Vocabulary for Primary Grades.* New York: Bureau of Publications, Teachers College, Columbia University, 1926.

[4] Thorndike, E. L., *The Teachers Wordbook of 30,000 Words.* New York: Bureau of Publications, Teachers College, Columbia University, 1944.

[5] Rinsland, H. D., *A Basic Vocabulary of Elementary School Children.* New York: Macmillan, 1953.

[6] Central Institute for the Deaf, "Language Outline." *American Annals of the Deaf,* 95:353-375, September 1950.

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Recording the Vocabulary

A teacher who wishes to perform a real service to the children and their future teachers will record all the verbs she has taught, noting well the meaning and the structure in which the verb has been presented. This may be done in several ways. A list for a group of primary children might be organized according to numerous categories of activities such as verbs related to self help or to locomotion. Or, the infinitive form of each verb may be listed on a separate sheet and placed alphabetically in a notebook. There the meanings and structures can be recorded year after year as new ones are presented. Such a list, after a number of years, might look like this for the verbs *call, catch* and *draw:*

call: Mother called Jimmy.
The blackbird called, "Caw, caw."
"Jimmy," called mother, "Come here."
"They called their baby Polly.

catch: I caught a ball.
A cat caught a mouse.
_____ caught a butterfly.
_____ has caught a cold.

draw: I drew a ball.
I can draw an airplane.
We will draw straws.
Mr. Jones drew some money from the bank.
Mary Ann drew a deep breath.

Teaching Multiple Meanings

At first no attempt is made to teach the multiple meanings of a particular verb. But as soon as children acquire a vocabulary of 30 or 40 basic action verbs, a broadening of the meanings of these verbs may be undertaken. These meanings still remain within the limits of the children's experiences. It would be fruitless to teach little children all the meanings of the word *draw,* as listed above. However, the time soon comes when they must begin to abstract and to generalize about verb meanings. For instance, they must recognize the act of drinking as one in which a glass, a cup, a straw, a bottle or a drinking fountain may be used. Some children are able to do this easily but others may need help in doing so. It is wise, therefore, to include planned exercises in the program of verb study to facilitate the learning of many meanings of verbs. New meanings can and should, however, be introduced incidentally in the course of daily activities. Let us say that early in the fall the children of a particular class are guests at Don's birthday party and learn to say, "Don blew out the candles on his cake." Later, during the season of sniffles, they add the meaning, "I blew my nose." When Jim chews bubble gum he says, "I blew a big bubble." Each new experience is recorded on a wall chart (Figure 1) as well

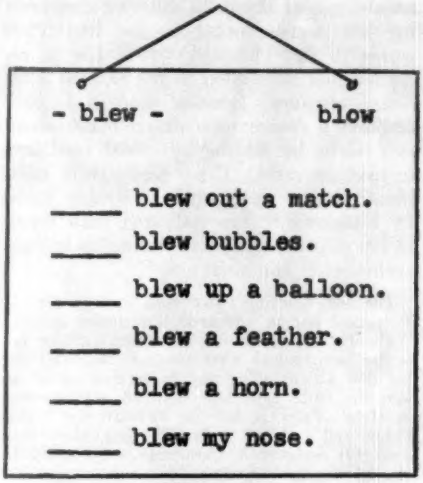

FIGURE 1
Wall chart illustrating various meanings recorded for the verb "blow."

as in the children's verb notebooks as suggested above. The same procedure is used for all the other verbs the children come in contact with.

During the time the children are learning new meanings they are also learning to use the verb forms correctly. To help the children obtain a better understanding of the use of the tenses, the printed forms are introduced on 9" x 6" flash cards. The past tense is lettered in black on the top line of the card. The infinitive form which is used as the basis for constructing the negative and question forms, as well as the future and progressive tenses, is lettered below it in red. (See Figure 2) During the drill periods these printed forms are associated with the actions the children perform and later with pictures. They are used as references for spelling when the children write sentences, and as guides for choosing the correct form of the tense being used. The teacher may also wish to

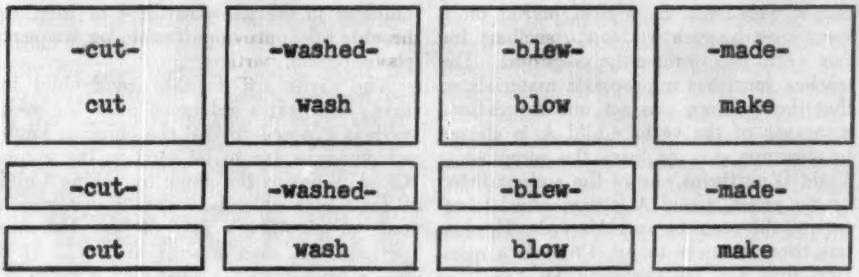

FIGURE 2
Examples of flash cards used in drills.

prepare a set of flash cards lettered only in black in which one of the verb forms appears. The children are held responsible for recognizing them as parts of a particular verb and for using them correctly in their oral and written work.

To review the familiar meanings of selected verbs which the children have studied, such as *blew, cut, made* and *washed*, for example, and to introduce new meanings which cannot actually be performed by the children, the teacher collects many pictures illustrating the multiple uses of these verbs. A key picture for each verb is chosen as one in which a women is cutting a cake, a man is washing his hands under a faucet or a boy is blowing out candles on a cake. Another picture might show a girl who has made a pie. The teacher places these pictures along the chalk rail or in a slot-chart and asks the children to identify them through lipreading.

She uses any tense the children are familiar with, saying, perhaps: "A man is washing his hands. A girl made a pie this morning. A boy blew out the candles on the cake. A woman cut a cake."

The children also match the printed forms, those on the 9" x 6" cards or the single verb cards as desired, with the pictures. If the verb being studied is "cut," the teacher then presents the children with mounted pictures of a man cutting grass, a child cutting paper with scissors, a barber cutting a boy's hair and any other appropriate ones she can find and asks that they be matched with the reference pictures. Likewise she might have a group of pictures of a man washing his car with a hose, a woman washing dishes by hand, one washing dishes in a dishwasher, a woman washing clothes in a machine, a girl washing doll's clothes in a tub, a woman washing a boy's ears, and so on for all the other verbs she has selected for the exercise. A child is asked to match these pictures with the other reference pictures on the chalk rail. Children then are asked to talk about the pictures and to recall their own experiences as related to the pictures.

Drill Games

I. Undoubtedly children who have reached the stage of development described above should be able to ask and answer

FIGURE 3
Examples of key pictures used in drill.

simple questions. In a drill period on a specific verb, such as *blow*, the chart for this verb is prominently displayed. The teacher furnishes appropriate materials so that the children can act out the various meanings of the verb. Child A is chosen to close his eyes or leave the room while Child B performs one of the actions listed on the chart. Child A is then asked to return to the room or open his eyes. He then has three chances to ask Child B a question that can be answered by "yes" or "no," as "Did you blow up a balloon?" If he does not guess by the third question, he must ask, "What did you do?" Child B responds appropriately. The turn then passes to two other children who carry on as Child A and B have done. As the children grow more familiar with the meanings, reliance on the chart diminishes.

II. As soon as children know a number of verbs which can be used broadly, they may play a card game, the rules for which can be developed to meet their abilities. The teacher prepares a deck of cards on

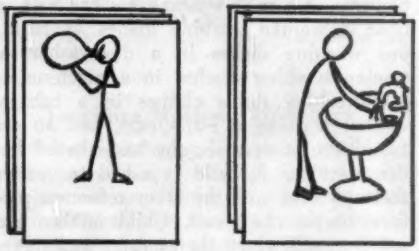

FIGURE 4
Stick-men cards used in game.

which are pictured stick-men descriptive of the verbs drilled on previously. The stick-men are to be considered merely as non-verbal symbols of the verbs used in the game. The assembled deck contains three cards of each verb to be used. It is a good idea to use enough verbs so that each child in the circle gets about six to nine cards in the deal. The object is to acquire all three cards for each verb, and to acquire as many verb sets as possible. This game is a device to stimulate lipreading, sentence memory, use of verb vocabulary in a broad sense and drill in a particular tense. The tense used in the drill has to be predetermined. It is best to keep the number of children in the game to three or four, to provide adequate opportunity for frequent participation.

The cards are dealt to each child in turn. One extra reference card for each verb is exposed so that the children know which verbs are to be used in the game. Child A begins the game by asking Child B for a card which he wishes to match with one, or possibly a pair of his. He says perhaps, "A man washed his car." If B has a *wash* card, he must give it up to A. If he doesn't have it, he keeps all his cards. Then Child B may ask Child C for one to build a set symbolizing another verb. C yields this card to B if he has one. C, however, may have been alert enough to notice that A has a *wash* card in his hand because he asked B for one. C has two *wash* cards and so, to get A's *wash* card he must use a sentence different from the one A used. He may say, "My mother washed the dishes," or "I washed my hands," but not "The man washed his car." No sentence already given may be repeated verbatim. The teacher is the final arbiter in determining whether a sentence is good enough to merit a reward in the form of the card asked for. When a child acquires a set of three cards, he places them face down on the table. Any number of varieties of the game can be played depending on the attention span of the children, their language abilities and their interest in it.

Animals and Inanimate Objects as Subject Actors

The above exercises limit the subject of the sentence to human actors. Another phase in broadening the concept of verb meanings consists of using animal actors as the subjects of the sentence. The deaf child must learn that though he hops with one leg, a bird can use two, and a rabbit four. It is a relatively simple project to list all the familiar animals that can *run, hop, jump* or *fly* and the like, and use them in sentences. More complicated sentence structure is required for all but the commonly used intransitive verbs. Take for instance the verbs *cut, make,* and *wash.* As the occasion arises the teacher calls attention to a situation in which a cat is washing itself, a bird made its nest in a tree, or some beavers cut the branches with their teeth. These new meanings of the verb are

added to the verb vocabulary in the recorded list.

By the time that the child is ready to talk about "things" as actors, he must be mature enough to be able to comprehend abstractions and idioms. For instance, referring to the verbs *blow, cut, made* and *wash,* the child will need to understand such sentences as the following in his reading: "The wind blew the leaves along the lane. The saw cut through the huge tree trunk in a flash. The thunder made a loud noise. The waves washed the boat ashore."

Again these new examples are added to the verb notebook. At this point it would be well for the teacher to scan the reading material the children are to come in contact with and note the various meanings attached to the verbs therein. In anticipation of the reading, unfamiliar meanings can be introduced at an appropriate time so that children will have had contact with most meanings in the text by the time they read the material.

If a teacher systematically presents action verbs first with people as subjects, then with animals and later with inanimate things as actors, the list of verb meanings that are accumulated can actually become a very functional homemade dictionary. When formal dictionary work is started the children have a ready knowledge that words do have many meanings. By then they should be on the right road toward conquering one of the difficult aspects of verb usage.

Problems of Audition—Hardy

(*Continued from page* 300)

consistent effort to assess the relationship between capacity and achievement. Third, is a thoughful exchange of information among the people most concerned with the child—parents, teacher, and clinician. The value of the other efforts breaks down when this is not accomplished.

Point 3 is a further extension of Point 2: the need to assess failures and successes. How can anybody know the meaning of a hearing aid to a child, if the child is not permitted to grow with it, minute by minute, and to learn to use the effect of amplified sound? Oftentimes the details of these various levels of audition are not apparent except in terms of comparison with other children, under controlled circumstances of learning. It is a fact that in this matter of language learning, and of significant response to and use of sound, the child is a psychologic machine constantly undergoing change in the establishment of response and inhibition, adaptation and awareness. How can these processes be enhanced in an atmosphere, classroom or social, wherein oral and auditory stimuli are rarities? How can one expect a child with one of these impairments to learn to develop a feedback mechanism for auditory discrimination if he is not permitted to receive and perceive sound until after his normal psychological period for this learning is passed? Assuming a fundamentally sound regimen of diagnostic teaching—creative teaching, if one prefers—at the preschool-age and early schoolage levels of development, based on parent guidance and participation, it may safely be assumed that careful assessment of successes and failures will pay good dividends in promoting ever more suitable ways in which to help each child.

An extension of this leads to Point 4, the last. For many years the world has paid lip service to the concept of "the whole child." Yet many social influences and professional bents continue to foster the labeling, the grouping, the dealing with a group of children, as though they were all the same person, with the same potentials, the same limitations, the same psychophysical systems. Everything that is being learned these days about childhood development and behavior — particularly that concerned with the communicative disorders discussed here—points up the importance of individual differences, the importance of reassessment, the importance of diagnostic differentiation and of diagnostic teaching. Can we not stop prelabeling these children, from some limited perspective of history, and study them and work with them as developing personalities with a wide variety of potentials and, like most children, best responsive to an eclectic approach in training!

What I Wish my Doctor Had Told Me

DOROTHY MACAULEY

THIS is being written strictly from the personal angle. I am writing it remembering vividly one day in my life, June 19, 1947, when my husband and I sat in an otologist's office in an eastern Canadian city.

It was just two weeks before our second son was to arrive. After the otologist had made a few simple tests, he told us that our eldest son John, age two years and three months, was deaf.

In response to our stunned questions, he told us that it was nerve deafness, that it appeared to be profound, and that it was inoperable. John would have to attend a school for the deaf, and because of overcrowded conditions he could not attend school before he was six and a half.

I remember asking, "But what are we going to do for him? What can we do for him between now and when he goes to school?"

The doctor wore a smile of professional kindliness as he answered: "Nothing. Take him home and treat him as a normal child." With just that much information we were dismissed.

Through relatives, friends, and friends of friends I found out about the *Volta Review*, the *Annals*, and the many fine books which have been written on the subject of deafness. I also learned, this way, about the Tracy Correspondence Course.

All these proved a godsend in the next two years—before I could summon up some semblance of hope and resignation.

How different it would have been for us if we had had some of this information in our hands that day when we left the doctor's office!

I am writing this, then, as I wish someone had written me. . . .

Dear Mrs. Smith,

In your letter of August 27 you asked me to give you a complete report on the hearing loss of your son John, age two years and six months.

Your son was given an ear, nose and throat examination at our clinic, and it would appear that his tonsils and adenoids are in good condition. Nor does there appear to be any obstruction in the canal, any malformation of the drum, nor other external physical factors to account for his deafness.

Because he has very little, if any, intelligible speech, our psychologist gave him an I.Q. test involving performance. While it is hard to get an exact test on so young a handicapped child, it would appear that your little boy rates higher than average.

I conditioned him to a rough hearing test with noisemakers, such as drums, cowbells and other noisemakers. It would appear he has a small amount of residual hearing in the low frequencies.

Very Few Are Totally Deaf

We find that very few children are "stone deaf," that is, without any hearing whatsoever. Most have a little residual hearing within the speech range. This is in the lower frequencies, we think, in John's case. Unfortunately many of the important speech sounds fall in the high frequency range. You should be encouraged, however, by the fact that over a period of years John can be taught to make good use of whatever hearing he has.

Later on we will try to give John a pure tone audiometric hearing test. That test will be more exact, but John will first need to have auditory training. Best results are obtained when a child is around seven or eight years old and mature enough to understand what is expected of him in such a test and to give quick and accurate response to the sounds he hears.

In the meantime your observations on what John appears to hear will be invaluable, and you can help us and him greatly by working with the noisemakers at home in a sort of play situation.

If you can, buy a number of these noisemakers in a five and ten or a party goods store—crickets, a cowbell, a toy drum, a whistle, and a toy gong. Sound one of

Mrs. MacAuley is a primary teacher in the Iowa School for the Deaf, Council Bluffs.

them several times in front of your little boy, then have him put his head down and cover his eyes. Get a few feet behind him and sound it. If he hears it this time, have him let you know by raising his hand.

It may take a few days to get a response from John. I think five minutes or so would be enough, since he is so young. Later, repeat the performance with one of the other toys.

After your son is thoroughly accustomed to the sounds of two noisemakers, have him discriminate between them if he is able to do so. For instance you might teach him to hold up an orange car, if the cricket is orange, and a red car if the drum or other toy is red.

These toys should be of very different pitches. We use slide whistles, toy xylophones, and other instruments later, which more nearly approximate the sounds he'll be listening for on the audiometer.

You may find that some sounds will bring no response. It may be that John is unable to hear them, it may be that his attention will have waned at that point, or it may be that he needs to hear them more often in order to know what to listen for.

In other words, don't be discouraged. Make the periods short, and full of fun.

After John has had his audiometric test you may find that he may show a better test when he is tested again a year or so later. This, I must tell you, will not represent an improvement in hearing. It will have come about simply because John has learned to listen and is better able to let us know that he has a little more residual hearing than we suspected at first, and is able to make good use of it.

Don't Waste Time Seeking Cures

Mrs. Smith, at this point I must be cruel in order to be kind. John's hearing cannot be improved by any means now known to science. Don't waste time and money on quacks and nostrums; don't be taken in by the overoptimistic claims of some hearing aid manufacturers and agents. We hope that you will be able to purchase a good hearing aid for your son, since controlled experiments have proved that they benefit the speech and lipreading ability in even the very severe cases of congenital deafness. A hearing aid will help, but too much should not be expected in cases where the nerves which carry the message to the brain are damaged or have failed to develop.

Let me give you a crude analogy. Suppose that the telephone system in your city is the most modern, and suppose that you have the newest type of instrument in your home. If the wires were blown down during a storm, you would not be able to receive any phone calls, would you? Perhaps that will give you an idea of what happens with nerve deafness. Another thing, pay no attention to the kindly assurances of friends that "he will outgrow it," but use this precious time for the education of your little deaf son.

These are the golden years for the foundation of language, and you can see to it that they are not wasted. Now is the time to get John started in lipreading, listening, and in spontaneous, natural speech.

Understand the "Normal" Child

Mrs. Smith, in order to best understand a deaf child one should at first learn to understand the so-called "normal" child. Much research has been conducted in recent years on the growth and learning patterns of the preschool child. I'm sure you feel that you understand your son, but too often parents and teachers of deaf children are inclined to concentrate on the deafness rather than on the whole child. They think in terms of what he can't do, rather than what he can. For that reason I am enclosing a bibliography of readings which will give you some help in understanding both hearing and deaf children.

I earnestly recommend a subscription to the *Volta Review*. It's a monthly magazine which is both readable and helpful. I'm sending you along a copy and know you will like the special column for parents.

I advise both you and Mr. Smith to cover the readings listed. A father plays an important part in the challenging task of raising a deaf child.

I'm sure that you're wondering how, when you are absorbing all this information, you can directly help your son between now and the time when he'll be attending a school for the deaf.

The Tracy Correspondence Course is

(*Continued on page* 316)

Minutes of the Sixty-Sixth Annual Meeting Alexander Graham Bell Association for the Deaf

The Sixty-Sixth annual meeting of the membership of the Alexander Graham Bell Association for the Deaf, Inc., was called to order by the President, Clarence D. O'Connor, at 11:45 A.M. on Tuesday, June 19, 1956, in the Wilshire Room of the Hotel Statler, Los Angeles, California. Dr. O'Connor welcomed all members and friends and expressed gratification at the large attendance at the meeting.

Upon motion, duly made and seconded, it was voted unanimously that the Secretary dispense with a reading of the minutes of the membership meeting of May 20, 1955, and that the minutes be approved.

Dr. O'Connor reported that the Treasurer, Mr. Hilleary F. Hoskinson, sent greetings to members of the Association and expressed regret that he was unable to be present. Miss Dunlap was then asked to read a brief treasurer's report, as follows:

Report of the Treasurer

The books of the Alexander Graham Bell Association for the Deaf, Inc., were audited by Wayne Kendrick, Inc., certified public accountants, as of Dec. 31, 1955, and were found to be in good order. A budget for the operation of the Association and the Volta Bureau, for the year 1956, was approved by the Finance Committee and the Board of Directors on Jan. 21, 1956. As of May 30, 1956, a check by the Treasurer indicates that the accounts are in good order and that the Association is operating within the limits approved in January. If income continues to be received as estimated, the Association should close the year 1956 within the budget set for the year. I am pleased to report that the Association plans to close the year without resorting to deficit financing, and that the Volta Bureau is continuing its expanded program of publishing and distributing professional teaching materials. A full report of receipts and disbursements is on file for inspection by any member of the Association and a summary will be furnished upon request.

Respectfully submitted
HILLEARY F. HOSKINSON

The President began his report by giving a brief account of activities at the Volta Bureau. He explained that the Treasurer's Report was particularly encouraging in view of the fact that the Association's income was seriously curtailed at the time the Volta Bureau building was remodeled. The cost of the remodeling, approximately $70,000, was met by withdrawing capital funds and the resulting loss of income made it necessary for the Association to operate on a deficit budget for several years and to reduce staff and services in order to meet its financial obligations. Little by little the deficit was reduced and in 1954 was retired in full by a grant from the American Telephone & Telegraph Company.

Dr. O'Connor paid tribute to Miss Josephine B. Timberlake who retired in 1953, as Executive Secretary and Editor of the *Volta Review* after 34 years of service; to Mrs. Laura Stovel, a retired staff member who graciously agreed to continue to serve the Volta Bureau by working on a part-time basis; and to Miss Minnie M. Hill, Assistant Executive Secretary, for her willingness to act as Executive Secretary until Miss Dunlap came to the Volta Bureau to replace Miss Timberlake.

In concluding his report, Dr. O'Connor explained that the Volta Bureau's services were growing and mentioned, in particular, the information and advisory services for teachers and parents and the professional publishing program.

President O'Connor brought to the attention of the members of the Association that the call of the meeting provided that among the matters to be considered are:

"a. The organizing of a new corporation under the laws of the District of Columbia with a similar name and for similar purposes as the present corporation and the assigning to the new corporation all the assets of the present corporation and the assumption by the new corporation of the obligations of the old corporation.

"b. Acting upon a proposed resolution authorizing the dissolution of the old corporation.

"The present corporation was organized under the laws of the State of Virginia, and as it was operating within the District of Columbia, the

present corporation was subject to the filing of certain reports, the payment of certain taxes, and were the new corporation organized under the laws of the District of Columbia, it would not be necessary for said new corporation to make said reports or to pay said taxes; that the Board deemed it advisable to take the appropriate steps to approve the organizing of a new corporation under the laws of the District of Columbia, the assigning of all of the assets of the old corporation to the new corporation and the new corporation assuming the liabilities of the old corporation and then to bring about the dissolution of the old corporation.

"The Board has taken action recommending the foregoing.

"RESOLVED:

"1. That the organizing of a new corporation under the laws of the District of Columbia with a similar name and for similar purposes to the present corporation be approved.

"2. That all of the assets of the old corporation be assigned to the new corporation and that the new corporation assume the debts and liabilities of the old corporation; and

"3. That the old corporation be dissolved."

It was moved by Dr. William G. Hardy and seconded by Roy Moore Stelle that the membership of the Association approve the recommendations of the Board and that the resolution, as read by Dr. O'Connor, be adopted. The motion carried unanimously.

Members were then asked to give their written consent to the proposed dissolution of the Virginia corporation. All members present and voting, being 129 in number, signed the consent forms which were circulated during the course of the meeting.

The President appointed Mrs. Lilian Grosvenor Coville, Secretary of the Association and a granddaughter of Dr. Bell, as official representative of the Association at the dedication of the Alexander Graham Bell Museum in Baddeck, Nova Scotia, Canada, on Aug. 18, 1956. Mrs. Coville briefly described the Museum and mentioned that its establishment was a great tribute to Dr. Bell and to his work.

Dr. O'Connor then called for the election of six Directors of the Association to serve for the term 1956-1959. He stated that sample ballots had been publicly posted and that the following members had been nominated in accordance with the provisions of the Constitution: John Yale Crouter, Jerome F. Donovan, James H. Galloway, Marshall S. Hester, Harriet McLaughlin, June Miller, Clarence D. O'Connor, George T. Pratt and Mrs. Elizabeth V. Scott.

Official counters appointed were: Miss Minnie M. Hill, Miss Margaret Kennedy, Miss Marjorie Magner and Mrs. Margaret Wood.

While ballots were being circulated and tabulated, the President appointed the following members to serve on the Summer Meeting Resolutions Committee: Mrs. Lilian Grosvenor Coville, Dr. Mildred A. Groht and Dr. William G. Hardy.

The following members were elected to the Board of Directors for the term 1956-1959:

John Yale Crouter
Jerome F. Donovan
June Miller
Clarence D. O'Connor
George T. Pratt
Mrs. Elizabeth V. Scott

The President thanked the members for their interest in the Association. He paid tribute to Mrs. Spencer Tracy and Mrs. Evelyn Stahlem, Co-Chairmen of the General Committee of the 1956 Summer Meeting; to Dr. Edgar L. Lowell, Committee Coordinator; to Dr. Clarence V. Hudgins, Chairman of the Program Committee; to Miss Jacqueline Keaster, Chairman of the Local Arrangements Committee; and to all members of the committees who had worked so diligently to make the Summer Meeting a success. The President also expressed thanks, on behalf of the Association, to all persons participating in the program.

The meeting adjourned at 12:30 o'clock.

Respectfully submitted,
LILIAN GROSVENOR COVILLE
SECRETARY

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NEWS

Memorial to Alice M. Schilling

A contribution in memory of Alice M. Schilling, an outstanding pioneer teacher of the deaf, was presented to the Alexander Graham Bell Association for the Deaf by the Chicago Oral Teachers Club. A native of Wisconsin, Miss Schilling passed away on Jan. 31, 1956 at her home in Waupun, Wisconsin. She was 83.

Miss Schilling was a life member of the Association. She was a charter member of the Chicago Oral Teachers Club, served as its president for several years, and was the guest of honor at its fiftieth anniversary.

Miss Schilling began her teaching career in Wisconsin, became a teacher of the deaf in the Chicago public school system in 1897, and taught there for 40 years. She was made head teacher of the Deaf Oral Department of the Beidler School in 1918 and served in that capacity until her retirement in 1937 at the age of 65.

From her earliest childhood Alice Schilling was familiar with the education of the deaf. Her father, the Rev. George Schilling, taught for 14 years in the Wisconsin State School for the Deaf. She graduated from the McCowen Oral School Training Class for Teachers in 1896 and took post-graduate courses at Central Institute for the Deaf, St. Louis, in 1897 and 1924.

Miss Schilling's interest in and work

NOTES

with the deaf extended over a period of more than half a century. After retiring from the Chicago public school system she returned to Wisconsin and made her home in Waupun. During her retirement she corresponded with many former pupils and their teachers and also taught lipreading. This work with the deaf, and interest in their problems, continued until a week before her death.

Certification of Training Program at Augustana College

The Certification Committee of the Conference of Executives of the American Schools for the Deaf recently approved the training program for teachers at Augustana College, Sioux Falls, South Dakota. Upon completion of the course, which is undergraduate, students receive a Bachelor of Arts degree and a teaching certificate. Practice teaching is given at the South Dakota School for the Deaf in Sioux Falls.

Richard W. Flint, who was principal of the South Dakota School from 1952-54, is head of the training program at Augustana. He returned to the college last fall after a year's study at Central Institute for the Deaf and Washington University, St. Louis.

Old *Volta Reviews* Available

Available for purchase are two cloth and leather bound copies of the *Volta Review*, Volumes 22 and 23, 1920 and 1921. The books are in excellent condition and handsome editions. The price per volume is $5.00.

An Oral School in Argentina

A small school for the deaf, the Instituto Oral Modelo, in Buenos Aires, Argentina, holds its classes for resident and nonresident pupils in an apartment which has been adapted to the needs of the school. There are four classrooms, a testing room, two bedrooms and a small dining room. Because of the lack of facilities in the country, accommodations have been made for eight boarding pupils. Classes for

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Edith Fitzgerald's

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WANTED BY SEPTEMBER, 1956: Executive Director
Position of Executive Director for the North Jersey Hearing and Speech Center will be open after August 10, 1956.
The position entails the following: 1. Audiometrics, fitting of hearing aids, speech evaluations. 2. Speech therapy, auditory training and lipreading for both adults and children. 3. Administrative duties. Starting salary $4,500. Apply to The North Jersey Hearing and Speech Center, 7 Church Street, Paterson 1, N. J.

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groups of seven children are held in rooms equipped with auditory training units. Monthly visiting and demonstration days were started in June of this year—and a PTA has been organized. Julia E. and Sara B. Polita Castro, directors of the school, were in the United States in 1954 and took courses of instruction in the education of the deaf.

Vocabulary Pamphlet Reprinted

Vocabulary Development for Acoustically Handicapped Children, by Margaret H. Fitzgerald, has recently been reprinted by Gallaudet College and sells for 50c. The popular 40-page pamphlet first appeared as an article in the November 1949 *Annals*, and has been out of print for five years.

WHAT I WISH MY DOCTOR HAD TOLD ME—MACAULEY

(*Continued from page* 311)

sent free of charge to parents of preschool deaf children all over the world. Mrs. Spencer Tracy is the mother of a congenitally deaf son. She realized that the golden years for speech and language development lie between the ages of two and five. This course has been a boon to little deaf children and their parents. It has been a great help to teachers of the deaf, too, because those children who have completed it have a distinct advantage over their classmates in their attitudes toward lipreading, speech, language, and listening —or auditory training.

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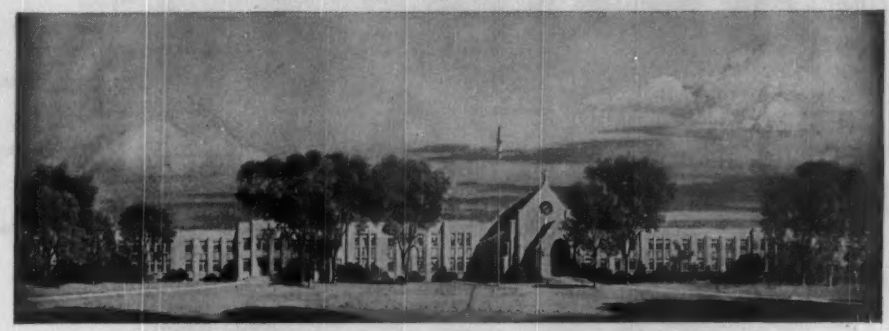

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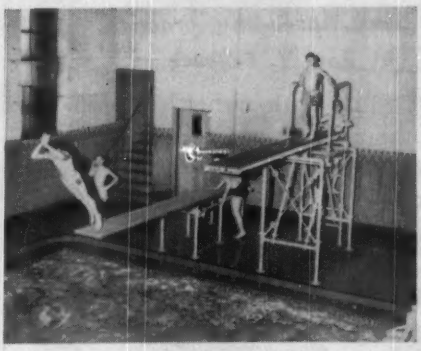

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